

ABSTRACT

The variable-order delta sigma modulator of the invention is capable of setting an optimum order in relation to a sampling frequency to be used, when using one out of plural sampling frequencies. As to the delta sigma modulator of the third order or higher, in a combination of two arbitrary continued integrators constituting the modulator is furnished a means that connects or disconnects the circuit on the second integrator side at the part of connecting the first integrator and the second integrator, or a means of switching the relation of connections. Connecting or disconnecting the circuit through the means and switching the relation of connections will set the order of the delta sigma modulator into an optimum order in relation to a sampling frequency.